IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A radio communication system comprising:

a radio reception unit ~~for receiving a radio signal, extracting a characteristic of the received radio signal, and converting the received radio signal into a reception signal~~ including a receiver configured to receive a radio signal, a radio signal characteristic extractor configured to extract a characteristic of the received radio signal, and a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal; and

a reception signal processing unit ~~for converting the reception signal into reception data on the basis of the extracted characteristic of the radio signal~~ including a demodulator configured to demodulate the reception signal by selecting a demodulation scheme on the basis of the extracted characteristic of the radio signal, a reception communication protocol processing unit configured to execute a communication protocol process of the demodulated reception signal by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal, and a decoder configured to decode the reception signal that has undergone the communication protocol process by selecting a decoding scheme on the basis of the extracted characteristic of the radio signal.

2. (Cancelled)

3. (Currently Amended) The system according to ~~claim 2~~ claim 1, wherein the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

4. (Currently Amended) The system according to claim 1, further comprising:

a transmission signal processing unit ~~for converting~~ configured to convert transmission data into a transmission signal on the basis of the extracted characteristic of the radio signal; and

a radio transmission unit ~~for converting~~ configured to convert the transmission signal into a radio signal, and transmitting the converted radio signal.

5. (Currently Amended) The system according to claim 4, wherein the transmission signal processing unit comprises an encoder ~~for encoding~~ configured to encode the transmission data by selecting an encoding scheme on the basis of the extracted characteristic of the radio signal, a transmission communication protocol processing unit ~~for executing~~ configured to execute a communication protocol process of the encoded transmission data by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal, and a modulator ~~for modulating~~ configured to modulate the transmission data, that has undergone the communication protocol process, by selecting a modulation scheme on the basis of the extracted characteristic of the radio signal, and

~~said~~ the radio transmission unit comprises a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal, and a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal.

6. (Currently Amended) The system according to claim 5, wherein ~~said~~ the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

7. (Currently Amended) An electronic apparatus with a radio communication function, comprising:

a radio reception unit ~~for receiving a radio signal, extracting a characteristic of the received radio signal, and converting the received radio signal into a reception signal~~ including a receiver configured to receive a radio signal, a radio signal characteristic extractor configured to extract a characteristic of the received radio signal, and a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal; and

a reception signal processing unit ~~for converting the reception signal into reception data on the basis of the extracted characteristic of the radio signal~~ including a demodulator configured to demodulate the reception signal by selecting a demodulation scheme on the basis of the extracted characteristic of the radio signal, a reception communication protocol processing unit configured to execute a communication protocol process of the demodulated reception signal by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal, and a decoder configured to decode the reception signal that has undergone the communication protocol process by selecting a decoding scheme on the basis of the extracted characteristic of the radio signal.

8. (Cancelled)

9. (Currently Amended) The apparatus according to ~~claim 8~~ claim 7, wherein ~~said~~ the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

10. (Currently Amended) The apparatus according to claim 7, further comprising:

a transmission signal processing unit ~~for converting~~ configured to convert transmission data into a transmission signal on the basis of the extracted characteristic of the radio signal; and

a radio transmission unit ~~for converting~~ configured to convert the transmission signal into a radio signal, and transmitting the converted radio signal.

11. (Currently Amended) The apparatus according to claim 10, wherein the transmission signal processing unit comprises an encoder ~~for encoding~~ configured to encode the transmission data by selecting an encoding scheme on the basis of the extracted characteristic of the radio signal, a transmission communication protocol processing unit ~~for executing~~ configured to execute a communication protocol process of the encoded transmission data by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal, and a modulator ~~for modulating~~ configured to modulate the transmission data, that has undergone the communication protocol process, by selecting a modulation scheme on the basis of the extracted characteristic of the radio signal, and

the radio transmission unit comprises a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal, and a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal.

12. (Original) The apparatus according to claim 11, wherein said transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

13. (Currently Amended) A semiconductor integrated circuit device for a radio communication, comprising:

a receiver ~~for receiving~~ configured to receive a radio signal;

a radio signal characteristic extractor ~~for extracting~~ configured to extract a characteristic of the received radio signal; and

a reception radio signal converter ~~for converting~~ configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

14. (Cancelled)

15. (Currently Amended) The device according to claim 13, further comprising:

a transmission radio signal converter ~~for converting~~ configured to convert modulated transmission data into a radio signal; and

a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal.

16. (Original) The device according to claim 15, wherein the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

17. (Currently Amended) A semiconductor integrated circuit device for a radio communication, comprising:

a receiver configured to receive a radio signal;

a radio signal characteristic extractor configured to extract a characteristic of the received radio signal;

a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

a demodulator ~~for demodulating~~ configured to demodulate a reception signal by selecting a demodulation scheme on the basis of [[an]] the extracted characteristic of a radio signal;

a reception communication protocol processing unit ~~for executing~~ configured to execute a communication protocol process of the demodulated reception signal by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal; and

a decoder ~~for decoding~~ configured to decode the reception signal, that has undergone the communication protocol process, by selecting a decoding scheme on the basis of the extracted characteristic of the radio signal.

18. (Currently Amended) The device according to claim 17, further comprising:

an encoder for encoding transmission data by selecting an encoding scheme on the basis of [[an]] the extracted characteristic of a radio signal;

a transmission communication protocol processing unit ~~for executing~~ configured to execute a communication protocol process of the encoded transmission data by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal; and

a modulator ~~for modulating~~ configured to modulate the transmission data, that has undergone the communication protocol process, by selecting a modulation scheme on the basis of the extracted characteristic of the radio signal.

19. (Currently Amended) The device according to claim 18, further comprising:

~~a receiver for receiving the radio signal;~~

~~a radio signal characteristic extractor for extracting a characteristic of the received radio signal;~~

~~a reception radio signal converter for converting the received radio signal into the reception signal;~~

a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal; and

a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal.

20. (Currently Amended) The device according to claim 19, wherein ~~the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal, and~~ the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

21. (Currently Amended) A radio communication method comprising ~~the steps of~~:

receiving a radio signal;

extracting a characteristic of the received radio signal from the received radio signal;

converting the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

demodulating the reception signal by selecting a demodulation scheme on the basis of the extracted characteristic of the radio signal;

executing a communication protocol process of the demodulated reception signal by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal; and

decoding the reception signal, that has undergone the communication protocol process, by selecting a decoding scheme on the basis of the extracted characteristic of the radio signal.

22. (Currently Amended) The method according to claim 21, further comprising ~~the steps of~~:

encoding a transmission signal by selecting a conversion scheme on the basis of an extracted characteristic of a radio signal;

executing a communication protocol process of the encoded transmission signal by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal;

modulating the transmission signal, that has undergone the communication protocol process, by selecting a modulation scheme on the basis of the extracted characteristic of the radio signal;

converting the modulated transmission signal into a radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal; and

transmitting the radio signal.

23. (Currently Amended) A radio communication system comprising:

a radio reception unit ~~for receiving a radio signal, extracting a characteristic of the received radio signal, and converting the received radio signal into a reception signal~~ including a receiver configured to receive a radio signal, a radio signal characteristic extractor

configured to extract a characteristic of the received radio signal, and a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

a modem/baseband reception/transmission signal processing unit ~~for executing~~ configured to execute a reception signal process of the reception signal by selecting a reception signal processing scheme on the basis of the extracted characteristic of the radio signal, and converting transmission data into a transmission signal by selecting a transmission signal processing scheme on the basis of the extracted characteristic of the radio signal; and

a radio transmission unit ~~for converting~~ configured to convert the transmission signal into a radio signal, and transmitting the converted transmission signal.

24. (Currently Amended) The system according to claim 23, wherein ~~the radio reception unit comprises a receiver for receiving the radio signal, a radio signal characteristic extractor for extracting a characteristic of the received radio signal, and a reception radio signal converter for converting the received radio signal into the reception signal,~~

~~the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal,~~

the radio transmission unit comprises a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal, and a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal, and

the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

25. (Currently Amended) An electronic apparatus with a radio communication function, comprising:

a radio reception unit ~~for receiving a radio signal, extracting a characteristic of the received radio signal, and converting the received radio signal into a reception signal~~ including a receiver configured to receive a radio signal, a radio signal characteristic extractor configured to extract a characteristic of the received radio signal, and a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

a modem/baseband reception/transmission signal processing unit ~~for executing~~ configured to execute a reception signal process of the reception signal by selecting a reception signal processing scheme on the basis of the extracted characteristic of the radio signal, and converting transmission data into a transmission signal by selecting a transmission signal processing scheme on the basis of the extracted characteristic of the radio signal; and

a radio transmission unit ~~for converting~~ configured to convert the transmission signal into a radio signal, and transmitting the converted transmission signal.

26. (Currently Amended) The apparatus according to claim 25, wherein ~~the radio reception unit comprises a receiver for receiving the radio signal, a radio signal characteristic extractor for extracting a characteristic of the received radio signal, and a reception radio signal converter for converting the received radio signal into the reception signal,~~

~~the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal,~~

the radio transmission unit comprises a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal, and a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal, and

the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

27. (Currently Amended) A semiconductor integrated circuit device for a radio communication, comprising:

a receiver configured to receive a radio signal;

a radio signal characteristic extractor configured to extract a characteristic of the received radio signal;

a reception radio signal converter configured to convert the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

a demodulator/baseband reception signal processing unit ~~for executing~~ configured to execute a reception signal process of a reception signal by selecting a reception signal processing scheme on the basis of an extracted characteristic of a radio signal; and

a modulator/baseband reception signal processing unit ~~for executing~~ configured to execute a transmission signal process of a reception signal by selecting a transmission signal processing scheme on the basis of the extracted characteristic of the radio signal.

28. (Currently Amended) The device according to claim 27, further comprising:

~~a receiver for receiving the radio signal;~~

~~a radio signal characteristic extractor for extracting a characteristic of the received radio signal;~~

~~a reception radio signal converter for converting the received radio signal into the reception signal;~~

a transmission radio signal converter ~~for converting~~ configured to convert the modulated transmission data into a radio signal; and

a radio transmitter ~~for transmitting~~ configured to transmit the converted radio signal.

29. (Currently Amended) The device according to claim 28, wherein ~~the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal, and~~ the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

30. (Currently Amended) A radio communication method comprising ~~the steps of~~:

receiving a radio signal;

extracting a characteristic of the received radio signal from the received radio signal;

converting the received radio signal into a reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal;

executing a reception signal process of the reception signal by selecting a reception signal processing scheme on the basis of the extracted characteristic of the radio signal;

executing a transmission signal process of the encoded transmission signal by selecting a transmission signal processing scheme on the basis of the extracted characteristic of the radio signal;

converting the transmission signal, that has undergone the transmission signal process into a radio signal, by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal; and

transmitting the radio signal.